

Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name: Gallatin Steel Company
Mailing Address: RR #1, Box 320, Ghent, KY 41045

is authorized to operate a steel mill and to construct/operate a second melt shop with associated equipment and a caster and tunnel furnace.

Source Name: Gallatin Steel Company
Mailing Address: RR#1, Box 320, Ghent, KY 41045
Source Location: U.S. Highway 42 West, Warsaw, Kentucky

Permit Type: Federally-Enforceable
Review Type: PSD, Title V

Permit Number: V-99-003 (Revision 2)
Log Number: 54190, 53839, F690
Application
Complete Date: November 26, 2001 (54190), May 21, 2001 (53839), June 23, 1998 (F690)
AFS Plant ID #: 21-077-00018
SIC Code: 3312

Region: CINCINNATI
County: Gallatin

Issuance Date: June 22, 2000
Revision 1 Date: August 27, 2001
Revision 2 Date: December 10, 2001
Expiration Date: June 22, 2005

John E. Hornback, Director
Division for Air Quality

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SECTION A -- PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto and shall become the final permit unless the U.S. EPA files an objection pursuant to 401 KAR 52:100, Section 10.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Prior to commencing construction on 02(E2), the permittee is responsible for demonstrating that all BACT requirements for all emission units in the new meltshop have not changed from the BACT requirements in F-96-009(Revision 1). If any BACT requirements have changed, the permittee shall meet all new BACT requirements. Additionally, if any parameters changed that affect the modeled ambient impacts in F-96-009(Revision 1), the permittee shall be responsible for performing additional appropriate modeling analyses.

Gallatin Steel Company, and the adjacent slag processing plant, AFS # 21-077-00020, and the industrial gas plant, AFS # 21-077-00023, are considered by the Kentucky Division for Air Quality and the US EPA Region IV to be one source as defined in 401 KAR 51:017, Prevention of significant deterioration of air quality (PSD). Each is responsible and liable for their own violations unless there is a joint cause for the violations.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

01 (E1)

Description:

Existing melt shop, consisting of the following:

Twin-Shell DC EAF & continuous caster
Ladle and tundish bricking, deskulling, and brick tear-out
Shell bricking and brick tear-out
Two LMF's
One tundish dryer, 1.5 MMBtu/hr
One ladle dryer, 8 MMBtu/hr
Three ladle preheaters, 10 MMBtu/hr, each
Two tundish preheaters, 10 MMBtu/hr, each
Two tundish casting nozzle preheaters, 5 MMBtu/hr, each
Two stirring stations
Dump pit for handling used refractory materials
Scrap cutting from slag pot
Control Equipment: positive pressure fabric filter baghouse
Construction commenced: April, 1993

APPLICABLE REGULATIONS:

- A. 401 KAR 51:017, Prevention of significant deterioration of air quality.
- B. 401 KAR 60:005 40 CFR standards of performance for new sources. Section 3. (1) (dd), Standards of performance for steel plants: electric arc furnaces and argon-oxygen decarburization vessels constructed after August 17, 1983 (40 CFR Part 60, Subpart AAa).
- C. 401 KAR 59:010, New process operations.

1. Operating Limitations:

- a. The following raw materials usage rates (including the replacement of the heel) shall not be exceeded: Scrap/substitutes: 270 tons/heat, Lime: 12 tons/heat, and Carbon/substitutes: 7 tons/heat. (Limit on PTE).

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Operating Limitations Continued:

- b. Scrap substitutes shall be limited to the following general categories: pig iron, direct reduced iron, iron carbide and briquetted iron. (Limit on PTE). The following materials generated on-site may be added to the EAF: dropout chamber contents; spark arrestor dust; roll grinding swarf; baghouse bags; personal protective equipment from baghouse and ductwork maintenance; and baghouse dust.
- c. The permittee shall primarily use high grade, low residual, preprocessed, inspected scrap. (BACT).
- d. The permittee shall not add into the EAF any charged carbon or any other carbon substitutes with a sulfur content greater than 0.65 percent by weight. (BACT).
- e. The permittee shall properly maintain and operate the side-wall burners (located within the EAF shell) in accordance with manufacturer's guidelines. The side-wall burners may be removed and/or replaced if the permittee demonstrates to the Division's satisfaction that compliance with the BACT limitations listed herein can be achieved. (BACT).
- f. Steel production rate shall not exceed 200 tons per hour (combined production rate, averaged over 24 hours) from the twin shell EAF as measured at the outlet of the caster. Simultaneous arc operation in both shells is prohibited. (Limit on PTE).
- g. The permittee is only authorized to operate the source under the operating scenarios that were in use when compliance was demonstrated.
- h. The permittee shall use necessary and reasonable precautions to control particulate emissions from the handling of the used refractory materials.
- i. The permittee may add drugs, firearms, and other materials confiscated by law enforcement agencies to the EAF charge.
- j. The permittee may add used baghouse bags to the EAF charge.

2. Emission Limitations:

- a. The permittee shall comply with the requirements of 40 CFR 60.272a, Standard for Particulate Matter, unless more stringent requirements are listed herein. As provided

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations Continued:

in 40 CFR 60.272a, the visible emissions as determined by USEPA's Method 9 shall meet the following limits:

- a. Less than three (3) percent opacity exiting the meltshop's baghouses;
 - b. Less than ten (10) percent opacity from the dust handling system; and
 - c. Less than six (6) percent opacity from the meltshop due solely to the operations of the EAFs.
 - d. Less than six (6) percent opacity from any meltshop opening when either of the EAFs is operating.
 - e. Less than six (6) percent opacity from any opening in buildings attached to the meltshop caused by emissions from any EAF operation.
-
- b. The visible emissions from any meltshop opening as determined by USEPA's Method 9 from operation of all other emission units in the melt shop not subject to 40 CFR 60.272a shall be less than 20 percent when the EAFs are not operating. (401 KAR 59:010).
 - c. The total particulate emission rate shall not exceed 16.05 lbs/hr. (BACT).
 - d. The particulate grain loading as measured at the control device exit by Reference Method 5D, 40 CFR 60, Appendix A, shall not exceed 0.0018 grain/dscf. (BACT).
 - e. The total carbon monoxide emission rates shall not exceed 400 lbs/hr and 2 lbs/ton of liquid steel. (BACT).

The permittee shall provide reasonable assurance of continuous compliance with the total carbon monoxide emission rates by operating the EAF such that the CO concentration, over the applicable averaging period, is less than or equal to 400 lbs/hr, as given by the following formula:

$$\text{lb(CO)/hr} = (C) \times (\text{SCFM}) \times (4.364 \times 10^{-6} \text{ (lb-SCFM/ppm/hr)}) \times (x/24)$$

WHERE: C = hourly average CEM concentration over 24 hours, ppm
SCFM = exhaust rate at standard conditions, determined from testing
X = hours EAF power on
and

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations Continued:

The permittee shall provide reasonable assurance of continuing compliance with the 2 lbs/ton of liquid steel produced limitation on carbon monoxide emissions as indicated by the following formula:

$$\text{lb/(CO)/ton steel} = [(\text{AC})/(\text{P})] \times (\text{x}/24)$$

WHERE: AC = lb(CO)/hr average for the 24 hour production day

P = average ton per hour steel poured during the 24 hour production day

X = hours EAF power on

The exhaust rate is to be determined using the testing methodology delineated under Section 3.e., below.

If the CEM data (set of 24 hour block averages) recorded in a calendar quarter show excursions from the hourly emission limit that occur in the aggregate for more than 5% of the total number of 24 hour sets generated during the quarter, the permittee shall contact the Division within thirty (30) days of aggregation of said excursions to schedule a performance test to demonstrate compliance with the carbon monoxide emission rate. The permittee shall conduct the performance test within ninety (90) days from the date it is required to contact the Division. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected. If the permittee demonstrates to the Division, and the Division concurs, that CO emissions for two consecutive years are shown to be less than or equal to 75% of the standards (both the lb/hr and lb/ton number) specified herein based upon CEM data, i.e., no daily average CO emission rate computed from the CEM data exceeding 300 lbs/hr, then the permittee may discontinue collection of the hourly CEM concentration data. . However, if later annual performance testing shows that CO emissions are greater than 75% of the hourly standard, then the hourly CEM data collection must be resumed within 6 months.

- f. The total nitrogen oxides emission rates, expressed as NO₂, shall not exceed 102 lbs/hr and 0.51 lb/ton of liquid steel. (BACT).

The permittee shall provide reasonable assurance of compliance with the total nitrogen oxide emission rate by operating the EAF such that the NO_x concentration, expressed as NO₂, over the applicable averaging period, is less than or equal to 102 lbs/hr, as indicated by the following formula:

$$\text{lb(NO}_x\text{)/hr} = (\text{N}) \times (\text{SCFM}) \times (7.17 \times 10^{-6} (1\text{b-SCFM/ppm-hr})) \times (\text{x}/24)$$

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations Continued:

WHERE: N = hourly average CEM concentration over 24 hours, ppm
 SCFM = exhaust rate at standard conditions determined from testing
 X = hours EAF power on

and

The permittee shall provide reasonable assurance of continuing compliance with the 0.51 lb/ton of liquid steel produced limitation on nitrogen oxide emissions as indicated by the following formula:

$$\text{lb(NO}_x\text{)/ton steel} = [(AN)/(P)] \times (x/24)$$

WHERE: AN = lb(NO_x)/hr average for the 24 hour production day
 P = average ton per hour steel poured during the 24 hour production day
 X = hours EAF power on

The exhaust rate is to be determined using the testing methodology delineated under Section 3.e., below.

If the CEM data (set of 24 hour block averages) recorded in a calendar quarter show excursions from the hourly emission limit that occur in the aggregate for more than 5% of the total number of 24 hour sets generated during the quarter, the permittee shall contact the Division within thirty (30) days of aggregation of said excursions to schedule a performance test to demonstrate compliance with the nitrogen oxides emission rate. The permittee shall conduct the performance test within ninety (90) days from the date it is required to contact the Division. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected. If the permittee demonstrates to the Division, and the Division concurs, that NO_x emissions for two consecutive years are shown to be less than or equal to 75% of the hourly standards specified herein based upon CEM data, i.e., no daily average NO_x emission rate computed from CEM data exceeding 76.5 lbs/hr or the 0.51 lb/ton, then the permittee may discontinue collection of the hourly CEM concentration data. However, if later annual performance testing shows that NO_x emissions are greater than 75% of the hourly standard, then the hourly CEM data collection must be resumed within 6 months.

- g. The total sulfur dioxide emission rates shall not exceed 40 lbs/hr and 0.2 lb/ton of liquid steel. (BACT).
- h. The total lead emission rates shall not exceed 0.162 lb/hr and 0.00081 lb/ton of liquid steel. (BACT).

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. The total VOC emission rates shall not exceed 26 lbs/hr and 0.13 lb/ton of liquid steel. (BACT).

3. Testing Requirements:

- a. The permittee shall comply with the requirements of 40 CFR 60.275a, Test methods and procedures, unless more stringent requirements are listed herein.
- b. The permittee shall conduct annual performance tests, within 90 calendar days of the anniversary date of the initial performance test (February 22, 1998) for NO_x, VOC, PM, CO, Pb and SO₂. If two consecutive annual tests result in specified emissions being less than or equal to 75% of the standards for VOC, PM, PB, and SO₂ specified herein, then no additional annual testing shall be required for that pollutant during the term of this permit. If two consecutive annual tests result in specified emissions being less than or equal to 75% of the standard for NO_x, specified herein, and the permittee chooses to continue the hourly CEM data collection, then no additional annual testing shall be required for NO_x during the term of this permit. If the permittee chooses to continue annual testing for NO_x, operation of NO_x CEM may cease if the requirements contained in Section 2.f. for this group of emission units are met.
- c. Performance tests shall be performed by the reference methods specified in Regulation 401 KAR 50:015, Section 1.
- d. If the performance tests and/or compliance demonstrations are not conducted at the EAF's maximum capacity as specified herein, the performance tests and/or compliance tests shall be repeated at 50 ton production increase intervals. Measurement of a production increase shall be based on changes in the average steel production per three consecutive heats. The permittee may petition the Division for Air Quality to exclude testing for certain pollutants at each of these production increase intervals.
- e) The exhaust rate of emissions referenced under Sections 2.e. and 2.f., above, is to be determined based upon measurement of flow rates in the caster canopy duct, EAF canopy duct, and DEC duct, combined, and converted to standard conditions over three 8-hour periods under conditions representative of normal EAF operations. The exhaust rate measurements shall be determined by EPA Methods 1 through 4. The permittee shall submit a report to the Division supporting the determination of any revised exhaust rate that is to be used in providing compliance assurance through the formula specified in Sections 2.e. and 2.f., above. The exhaust rate is to be redetermined by the permittee if changes in operating conditions occur that would

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

indicate that the previously-determined exhaust rate is no longer representative of normal operating conditions, and the Division concurs.

4. Specific Monitoring Requirements:

- a. The permittee shall maintain and operate devices which continuously monitor and record the NO_x and CO concentrations of the gases in the duct leading to the baghouse, or other approved locations. The NO_x and CO monitors shall be operated in compliance with performance specifications 2 and 4, respectively, as contained in 40 CFR Part 60, Appendix B. The span values for the monitors shall be 100 ppm. The permittee shall follow the applicable quality assurance procedures contained in 40 CFR Part 60, Appendix F, and the monitors shall be calibrated with gases of known concentrations equal to: 50 to 60 ppm; 20 to 30 ppm; 10 to 15 ppm; and zero.
- b. The permittee shall comply with the requirements of 40 CFR 60.274a, Monitoring of operations, unless more stringent requirements are listed herein. As provided in 40 CFR 60.274a, the operation of the emission capture system shall be monitored through checks, performed on a once-per-shift basis, of the furnace static pressure, control system fan amperes and damper positions. The data gathered shall be compared against the values established during the latest performance test and approved by the Division. Any deviation in the amperage of the fans used in exhausting the emissions to the baghouses more than ± 15 percent from the value established during the performance test and approved by the Division and any exceedance of the static pressure in the free space inside the EAFs above the level established during the latest performance test and approved by the Division, may be considered to be unacceptable operation and maintenance of this affected facility. The pressure monitoring device shall have an accuracy of plus or minus 5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions. Monitoring of the capture system performance shall also be performed through monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.
- c. The permittee shall comply with the requirements of 40 CFR 60.273a, Emission Monitoring, unless more stringent requirements are listed herein. As provided in 40 CFR 60.273a, the opacity monitoring, made by observations of the visible emissions

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Specific Monitoring Requirements Continued:

from the baghouse exit and the meltshop exit, or connected building exit, having the highest opacity, shall be performed by a certified visible emissions observer as follows:

- Visible emission observations shall be conducted at least once per day, during on-line operation of the furnaces and once per day during off-line operation. At least once per week, a qualitative visual observation shall be conducted during operation of dust handling equipment of the baghouse.
- These observations shall be taken in accordance with Method 9, and, for at least three 6 minute periods, the opacity shall be recorded for each point(s) where visible emissions are observed.
- Where it is possible to determine that a number of these visible emission sites relate to only one incident of visible emissions, one set of three 6-minute observations will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emission observed during a single incident.

The visible emission observations shall begin on the date the performance test required in this permit is completed.

- d) When the EAF's are not operating, the permittee shall observe the meltshop opening having the highest visible emission. This shall be performed weekly, if possible, and by a certified visible emissions observer.
- e) The permittee shall inspect each load of scrap as it is received either by truck, railcar, or barge. The permittee shall use only scrap that is typical of the scrap used during the annual stack tests where compliance was demonstrated.
- f) The permittee shall maintain records of the analyses on the sulfur contents of the charged and injection carbons.

5. Specific Record Keeping Requirements:

- a. The permittee shall comply with the requirements of 40 CFR 60.276a, Record keeping and reporting requirements, unless more stringent requirements are listed herein.
- b. The permittee shall keep records of the amounts of carbon charged and injected per heat, the sulfur contents, analyses, and these records shall be available to Division personnel upon request.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements (continued):

- c. The permittee shall keep records of the amounts, types, as well as a general description of the scrap or scrap substitutes, and these records shall be made available to Division personnel upon request.
- d. The permittee shall keep records of the maintenance and operating parameters of the control equipment, and these records shall be made available to Division personnel upon request. The parameters shall include the pressure drop ranges, and those parameters required to be monitored by 40 CFR Subpart AAa.
- e. The permittee shall keep records of the CO and NO_x (expressed as NO₂) concentrations recorded from the CEMs, steel production data, and other data used to provide reasonable assurance of compliance with CO and NO_x emission limitations under the formula specified in Sections 2.e. and 2.f., above. These records shall be made available to Division personnel upon request.
- f. The permittee shall keep records of opacity readings made.

6. Specific Reporting Requirements:

- a. The permittee shall comply with the reporting requirements of 40 CFR 60.276a.
- b. The permittee shall provide quarterly written and electronically formatted reports to the Division's Frankfort Central Office containing the data provided by the continuous emission devices. All reports shall be post marked by the thirtieth (30th) day following the end of each calendar quarter and shall be submitted in the format specified by the division. The averaging periods used for data reporting shall correspond to the averaging periods specified herein for emission limitations. The emissions shall be reported in ppm per hour, pounds per hour, pounds per ton of liquid steel tapped, tons per reporting period, and cumulative tons per year for the preceding consecutive 12 month period. The permittee shall identify the methodology used to determine the above required information in the quarterly reports. NO_x emissions shall be reported as NO₂. A file shall be kept and maintained on the following items:
 - i.) Emission measurement (strip charts, etc.);
 - ii.) Monitor performance testing measurements;
 - iii.) Performance evaluations;
 - iv.) Calibration checks;
 - v.) Adjustments and maintenance performed on such monitoring devices.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Within 30 days of the end of each calendar quarter, the permittee shall submit to the Division a report containing the number of excursions above the CO and NO_x emission limitations that are indicated by the methodology established under Sections 2.e. and 2.f., above. The report shall include the date and time of the excursions, the indicated values of the excursions, and the percentage of EAF operating time during which excursions occurred in the calendar quarter.

7. Specific Control Equipment Operating Conditions:

The permittee shall install, properly maintain, and operate the control equipment in accordance with manufacturer's guidelines.

8. Alternate Operating Scenarios:

None.

9. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

02 (E2)

Description:

New meltshop to be constructed, consisting of the following:

Twin-Shell EAF & continuous caster
Ladle and tundish bricking, deskulling, and brick tear-out
Shell bricking and brick tear-out
One LMF
One tundish dryer, 1.5 MMBtu/hr
One ladle dryer, 14 MMBtu/hr
One ladle dryer afterburner, 3 MMBtu/hr
Three ladle preheaters, 14 MMBtu/hr, each
Two tundish preheaters, 10 MMBtu/hr, each
Two tundish casting nozzle preheaters, 5 MMBtu/hr, each
Dump pit for handling used refractory materials
Scrap cutting from slag pot
Control Equipment: positive pressure fabric filter baghouse
Construction commenced: August 1, 1997

APPLICABLE REGULATIONS:

- A. 401 KAR 51:017, Prevention of significant deterioration of air quality.
- B. 401 KAR 60:005 40 CFR standards of performance for new sources. Section 3. (1)(dd), Standards of performance for steel plants: electric arc furnaces and argon-oxygen decarburization vessels constructed after August 17, 1983 (40 CFR Part 60, Subpart AAa).
- C. 401 KAR 59:010, New process operations.

1. Operating Limitations:

- a. The following raw materials usage rates (including the replacement of the heel) shall not be exceeded: Scrap/substitutes: 270 tons/heat, Lime: 12 tons/heat, and Carbon/substitutes: 7 tons/heat. (Limit on PTE).
- b. Scrap substitutes shall be limited to the following general categories: pig iron, direct reduced iron, iron carbide and briquetted iron. (Limit on PTE). The following materials generated on-site may be added into the EAF: dropout chamber contents;

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Operating Limitations continued:

spark arrestor dust; roll grinding swart; baghouse bags; personal protective equipment from baghouse and ductwork maintenance; and baghouse dust.

- c. The permittee shall primarily use high grade, low residual, preprocessed, inspected scrap. (BACT).
- d. The permittee shall not add into the EAFs any charged carbon or any other carbon substitutes with a sulfur content greater than 0.65 percent by weight. (BACT).
- e. The permittee shall properly maintain and operate the side-wall burners (located within the EAF shell) in accordance with manufacturer's guidelines. The side-wall burners may be removed and/or replaced if the permittee demonstrates to the Division's satisfaction that compliance with the BACT limitations listed herein can be achieved. (BACT).
- f. Steel production rate shall not exceed 200 tons per hour (combined production rate, averaged over 24 hours) from the twin shell EAF as measured at the outlet of the caster. Simultaneous arc operation in both shells is prohibited. (Limit on PTE).
- g. The permittee is only authorized to operate the source under the operating scenarios that were in use when compliance was demonstrated.
- h. The permittee shall use necessary and reasonable precautions to control particulate emissions from the handling of the used refractory materials.
- i. The permittee may add drugs, firearms, and other materials confiscated by law enforcement agencies to the EAF charge.
- j. The permittee may add used baghouse bags to the EAF charge.

2. Emission Limitations :

- a. The permittee shall comply with the requirements of 40 CFR 60.272a, Standard for Particulate Matter, unless more stringent requirements are listed herein. As provided in 40 CFR 60.272a, the visible emissions as determined by USEPA's Method 9 shall meet the following limits:
 - a. Less than three (3) percent opacity exiting the meltshop's baghouses;

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations Continued

- b. Less than ten (10) percent opacity from the dust handling system; and
 - c. Less than six (6) percent opacity from the meltshop due solely to the operations of the EAFs.
 - d. Less than six (6) percent opacity from any meltshop opening when either of the EAFs is operating
 - e. Less than six (6) percent opacity from any opening in buildings attached to the meltshop caused by emissions from any EAF operation.
-
- b. The visible emissions as determined by USEPA's Method 9 from operation of all other emission units in the melt shop not subject to 40 CFR 60.272a shall be less than 20 percent when the EAFs are not operating. (401 KAR 59:010).
 - c. The total particulate emission rate shall not exceed 16.05 lbs/hr. (BACT).
 - d. The particulate grain loading as measured at the control device exit by Reference Method 5D, 40 CFR 60, Appendix A, shall not exceed 0.0018 grain/dscf. (BACT).
 - e. The total carbon monoxide emission rates shall not exceed 400 lbs/hr and 2 lbs/ton of liquid steel. (BACT).

The permittee shall provide reasonable assurance of continuous compliance with the total carbon monoxide emission rate by operating the EAF such that the CO concentration, over the applicable averaging period, is less than or equal to 400 lbs/hr, as indicated by the following formula:

$$\text{lb(CO)/hr} = (C) \times (\text{SCFM}) \times (4.364 \times 10^{-6} (\text{lb-SCFM/ppm/hr})) \times (x/24)$$

WHERE: C = hourly average CEM concentration over 24 hours, ppm
SCFM = exhaust rate at standard conditions determined from testing
X = hours EAF power on

and

The permittee shall provide reasonable assurance of continuing compliance with the 2 lbs/ton of liquid steel produced limitation on carbon monoxide emissions as indicated by the following formula:

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations Continued

$$\text{lb}/(\text{CO})/\text{ton steel} = [(\text{AC})/(\text{P})] \times (\text{x}/24)$$

WHERE: AC = lb(CO)/hr average for the 24 hour production day

P = average ton per hour steel poured during the 24 hour production day

X = hours EAF power on

The exhaust rate is to be determined using the testing methodology delineated under Section 3.g., below.

If the CEM data (set of 24 hour block averages) recorded in a calendar quarter show excursions from the hourly emission limit that occur in the aggregate for more than 5% of the total number of 24 hour sets generated during the quarter, the permittee shall contact the Division within thirty (30) days of aggregation of said excursions to schedule a performance test to demonstrate compliance with the carbon monoxide emission rate. The permittee shall conduct the performance test within ninety (90) days from the date it is required to contact the Division. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected. If the permittee demonstrates to the Division, and the Division concurs, that CO emissions for two consecutive years are shown to be less than or equal to 75% of the standards (both lb/hr and lb/ton) specified herein based upon CEM data, i.e., no daily average CO emission rate computed from CEM data exceeding 300 lbs/hr and 2 lb/ton, then the permittee may discontinue collection of the hourly CEM concentration data. . However, if later annual performance testing shows that CO emissions are greater than 75% of the hourly standard, then the hourly CEM data collection must be resumed within 6 months.

- f. The total nitrogen oxides emission rate, expressed as NO₂, shall not exceed 102 lbs/hr and 0.51 lb/ton of liquid steel. (BACT).

The permittee shall provide reasonable assurance of continuing compliance with the total nitrogen oxide emission rate by operating the EAF such that the NO_x concentration, expressed as NO₂, over the applicable averaging period, is less than or equal to 102 lbs/hr, as indicated by the following formula:

$$\text{lb}(\text{NO}_x)/\text{hr} = (\text{N}) \times (\text{SCFM}) \times (7.17 \times 10^{-6} (1\text{b-SCFM/ppm-hr})) \times (\text{x}/24)$$

WHERE: N = hourly average CEM concentration over 24 hours, ppm

SCFM = exhaust rate at standard conditions determined from testing

X = hours EAF power on

and

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations Continued:

The permittee shall provide reasonable assurance of continuing compliance with the 0.51 lb/ton of liquid steel produced limitation on nitrogen oxide emissions as indicated by the following formula:

$$\text{lb}(\text{NO}_x)/\text{ton steel} = [(\text{AN})/(\text{P})] \times (\text{x}/24)$$

WHERE: AN = lb(NO_x)/hr average for the 24 hour production day
 P = average ton per hour steel poured during the 24 hour production day
 X = hours EAF power on

The exhaust rate is to be determined using the testing methodology delineated under Section 3.g., below.

If the CEM data (set of 24 hour block averages) recorded in a calendar quarter show excursions from the hourly emission limit that occur in the aggregate for more than 5% of the total number of 24 hour sets generated during the quarter, the permittee shall contact the Division within thirty (30) days of aggregation of said excursions to schedule a performance test to demonstrate compliance with the nitrogen oxides emission rate. The permittee shall conduct the performance test within ninety (90) days from the date it is required to contact the Division. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected.

If the permittee demonstrates to the Division, and the Division concurs, that NO_x emissions for two consecutive years are shown to be less than or equal to 75% of the hourly standard specified herein based upon CEM data, i.e., no daily average NO_x emission rate computed from CEM data exceeding 76.5 lbs/hr and 0.51 lb/ton, then the permittee may discontinue collection of the hourly CEM concentration data. However, if later annual performance testing shows that NO_x emissions are greater than 75% of the standards, then the hourly CEM data collection must be resumed.

- g. The total sulfur dioxide emission rates shall not exceed 40 lbs/hr and 0.2 lb/ton of liquid steel. (BACT).
- h. The total lead emission rates shall not exceed 0.162 lb/hr and 0.00081 lb/ton of liquid steel. (BACT).
- i. The total VOC emission rates shall not exceed 26 lbs/hr and 0.13 lb/ton of liquid steel. (BACT).

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

- a. The permittee shall comply with the requirements of 40 CFR 60.275a, Test methods and procedures, unless more stringent requirements are listed herein.
- b. Within 60 days after achieving the maximum production rate at which the affected facilities will be operated, but not later than 180 days after start-up of such facilities listed herein, the permittee shall conduct performance tests on E2(02) (baghouse exhaust) for NO_x, VOC, PM, CO, SO₂, and lead emissions and furnish the Division's Frankfort office a written report of the results of such performance tests.
- c. The permittee shall conduct annual performance tests, within 90 calendar days of the anniversary date of the initial performance test for NO_x, VOC, PM, CO, Pb and SO₂. If two consecutive annual tests result in specified emissions being less than or equal to 75% of the standard for VOC, PM, Pb, and SO₂, specified herein, then no additional annual testing for that pollutant shall be required during the term of this permit. If two consecutive annual tests result in specified emissions being less than or equal to 75% of the standard for NO_x, specified herein, and the permittee chooses to continue the hourly CEM data collection, then no additional annual testing shall be required for NO_x during the term of this permit. If the permittee chooses to continue annual testing for NO_x, operation of the NO_x CEM may cease if the requirements contained in Section 2.f. for this group of emission units are met.
- d. Performance tests shall be performed by the reference methods specified in Regulation 401 KAR 50:015, Section 1.
- e. The PM from the PM compliance tests shall be analyzed to determine the emissions of copper, antimony, arsenic, beryllium, cadmium, cobalt, manganese, mercury, nickel, selenium, vanadium, calcium oxide, aluminum, chromium metal, chromium (VI and III), molybdenum, and zinc. This analysis is only required for the first compliance test on the EAF. (State-origin requirement).
- f. If the performance tests and/or compliance demonstrations are not conducted at the EAF's maximum capacity as specified herein, the performance tests and/or compliance tests shall be repeated at 50 ton production increase intervals. Measurement of a production increase shall be based on changes in the average steel production per three consecutive heats. The permittee may petition the Division for Air Quality to exclude testing for certain pollutants at each of these production increase intervals.
- g. The exhaust rate of emissions referenced under Sections 2.e. and 2.f., above, is to be based upon measurement of flow rates in the caster canopy duct, EAF

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Testing Requirements continued:

canopy duct, and DEC duct, combined, and converted to standard conditions over three 8-hour periods under conditions representative of normal EAF operations. The exhaust rate measurements shall be determined by EPA Methods 1 through 4. The flow rate shall be determined at the time of the testing required in 3.b., above. The permittee shall submit a report to the Division supporting the determination of any revised exhaust rate that is to be used in providing compliance assurance through the formula specified in Sections 2.e. and 2.f., above. The exhaust rate is to be redetermined by the permittee if changes in operating conditions occur that would indicate that the previously-determined exhaust rate is no longer representative of normal operating conditions, and the Division concurs.

4. Specific Monitoring Requirements:

- a. The permittee shall maintain and operate devices which continuously monitor and record the NO_x and CO concentrations of the gases in the duct leading to the baghouse, or other approved locations. The NO_x and CO monitors shall be operated in compliance with performance specifications 2 and 4, respectively, as contained in 40 CFR Part 60, Appendix B. The span values for the monitors shall be 100 ppm. The permittee shall follow the applicable quality assurance procedures contained in 40 CFR Part 60, Appendix F, and the monitors shall be calibrated with gases of known concentrations equal to: 50 to 60 ppm; 20 to 30 ppm; 10 to 15 ppm; and zero.
- b. The permittee shall comply with the requirements of 40 CFR 60.274a, Monitoring of operations, unless more stringent requirements are listed herein. As provided in 40 CFR 60.274a, the operation of the emission capture system shall be monitored through checks, performed on a once-per-shift basis, of the furnace static pressure, control system fan amperes and damper positions. The data gathered shall be compared against the values established during the latest performance test and approved by the Division. Any deviation in the amperage of the fans used in exhausting the emissions to the baghouses by more than ± 15 percent from the value established during the performance test and approved by the Division and any exceedance of the static pressure in the free space inside the EAFs above the level established during the latest performance test and approved by the Division, may be considered to be unacceptable operation and maintenance of this affected facility. The pressure monitoring device shall have an accuracy of plus or minus 5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Specific Monitoring Requirements continued:

Monitoring of the capture system performance shall also be performed through monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection

shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

- c. The permittee shall comply with the requirements of 40 CFR 60.273a, Emission Monitoring, unless more stringent requirements are listed herein. As provided in 40 CFR 60.273a, the opacity monitoring, made by observations of the visible emissions from the baghouse exit and the meltshop exit, or connected building exit, having the highest opacity, shall be performed by a certified visible emissions observer as follows:
 - Visible emission observations shall be conducted at least once per day, during on-line operation of the furnaces and once per day during off-line operation. At least once per week, a qualitative visual observation shall be conducted during operation of dust handling equipment of the baghouse.
 - These observations shall be taken in accordance with Method 9, and, for at least three 6-minute periods, the opacity shall be recorded for each point(s) where visible emissions are observed.
 - Where it is possible to determine that a number of these visible emission sites relate to only one incident of visible emissions, one set of three 6-minute observations will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emission observed during a single incident. The visible emission observations shall begin on the date the performance test required in this permit is completed.
- d. When the EAF's are not operating, the permittee shall observe the meltshop opening having the highest visible emission. This shall be performed weekly, if possible, and by a certified visible emissions observer.
- e. The permittee shall inspect each load of scrap as it is received either by truck, railcar, or barge. The permittee shall use only scrap that is typical of the scrap used during the annual stack test where compliance was demonstrated.
- f. The permittee shall maintain records of the analyses on the sulfur contents of the charged and injection carbons.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

- a. The permittee shall comply with the requirements of 40 CFR 60.276a, Record keeping and reporting requirements, unless more stringent requirements are listed herein.
- b. The permittee shall keep records of the carbon charged per heat, the sulfur contents, analyses, and these records shall be available to Division personnel upon request.
- c. The permittee shall keep records of the amounts, types, as well as a general description of the scrap or scrap substitutes, and these records shall be made available to Division personnel upon request.
- d. The permittee shall keep records of the maintenance and operating parameters of the control equipment, and these records shall be made available to Division personnel upon request. The parameters shall include the pressure drop ranges, and those parameters required to be monitored by 40 CFR Subpart AAa.
- e. The permittee shall keep records of the CO and NO_x (expressed as NO₂) concentrations recorded from the CEMs, steel production data, and other data used to provide reasonable assurance of compliance with CO and NO_x emission limitations under the formula specified in Sections 2.e. and 2.f., above. These records shall be made available to Division personnel upon request.
- f. The permittee shall keep records of all opacity readings made.

6. Specific Reporting Requirements:

- a. The permittee shall comply with the reporting requirements of 40 CFR 60.276a.
- b. The permittee shall provide quarterly written and electronically formatted reports to the Division's Frankfort Central Office containing the data provided by the continuous emission devices. All reports shall be post marked by the thirtieth (30th) day following the end of each calendar quarter and shall be submitted in the format specified by the division. The averaging periods used for data reporting shall correspond to the averaging periods specified herein for emission limitations. The emissions shall be reported in ppm per hour, pounds per hour, pounds per ton of liquid steel tapped, tons per reporting period, and cumulative tons per year for the preceding consecutive 12 month period. The permittee shall identify the methodology used to determine the above required information in the quarterly reports. NO_x

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Specific Reporting Requirements continued:

emissions shall be reported as NO₂. A file shall be kept and maintained on the following items:

- i.) Emission measurement (strip charts, etc.);
 - ii.) Monitor performance testing measurements;
 - iii.) Performance evaluations;
 - iv.) Calibration checks;
 - v.) Adjustments and maintenance performed on such monitoring devices.
- c. Within 30 days of the end of each calendar quarter, the permittee shall submit to the Division a report containing the number of excursions above the CO and NO_x emission limitations that are indicated by the methodology established under Sections 2.e. and 2.f., above. The report shall include the date and time of the excursions, the indicated values of the excursions, and the percentage of EAF operating time during which excursions occurred in each calendar quarter.

7. Specific Control Equipment Operating Conditions:

The permittee shall install, properly maintain, and operate the control equipment in accordance with manufacturer's guidelines.

8. Alternate Operating Scenarios:

None.

9. Compliance Schedule:

None

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

03 & 04 (R1)

Description:

Slab Reheat Tunnel Furnace (124.0 MMBtu/Hour)

Construction commenced: April, 1993

APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations:

- a. The permittee shall use only natural gas as fuel. (BACT).
- b. The reheat tunnel furnace shall be equipped with ultra low NO_x burners (burners designed to maintain 0.09 lb/MM Btu). (BACT).
- c. The total natural gas use shall not exceed 90.5 MMcf/month, averaged over a three-month rolling period, and 1086 MMcf/yr. (Limit on PTE).

2. Emission Limitations:

- a. Nitrogen oxides emission rates, expressed as NO₂, shall not exceed 7.26 lbs/hr and 0.09 lb/MM Btu. (BACT).
- b. The carbon monoxide emission rates shall not exceed 2.83 lbs/hr and 35 lbs/MMcf. (BACT).

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor the natural gas usage on a monthly basis.

5. Specific Record Keeping Requirements:

The permittee shall keep records of the monthly natural gas usage in MMcf.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

The permittee shall provide a written monthly report, within 30 days following the end of each month, of the reheat furnace's monthly natural gas usage in MMcf/month. The report shall be mailed to the Division's Florence Regional Office with a copy to the Frankfort Central Office.

7. Specific Control Equipment Operating Conditions:

None.

8. Alternative Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

05 & 06 (R2)

Description:

Slab Reheat Tunnel Furnace (80.7 MMBtu/Hour)

Construction commenced: August 1, 1997

APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations:

- a. The permittee shall use only natural gas as fuel. (BACT).
- b. The reheat tunnel furnace shall be equipped with ultra low NO_x burners (i.e., burners designed to maintain 0.09 lb/MM Btu). (BACT).
- c. The total natural gas use shall not exceed 59 MMcf/month, averaged over a three-month rolling period, and 707 MMcf/yr. (Limit on PTE).

2. Emission Limitations:

- a. Nitrogen oxides emission rates, expressed as NO₂, shall not exceed 7.26 lbs/hr and 0.09 lb/MM Btu. (BACT).
- b. The carbon monoxide emission rates shall not exceed 2.83 lbs/hr and 35 lbs/MMcf. (BACT).

3. Testing Requirements:

Within 60 days after achieving the maximum production rate at which the affected facilities will be operated, but not later than 180 days after startup of such facilities, the owner or operator shall conduct a performance test on R2 (05 & 06) for NO_x and furnish the Division's Frankfort office a written report of the results of such performance test.

4. Specific Monitoring Requirements:

The permittee shall monitor the natural gas usage on a monthly basis.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

The permittee shall keep records of the monthly natural gas usage in MMcf.

6. Specific Reporting Requirements:

The permittee shall provide a written monthly report, within 30 days following the end of each month, of the reheat furnace's monthly natural gas usage in MMcf/month. The reports shall be mailed to the Division's Florence Regional Office with a copy to the Frankfort Central Office.

7. Specific Control Equipment Operating Conditions:

None.

8. Alternative Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(-) T1

Description:

Cooling Towers, including:

Tower #1, 1 cell (existing)

Tower #2, 3 cells (2 existing cells and 1 new cell)

Tower #3, 6 cells (3 existing cells and 3 new cells)

Construction commenced: April, 1993, for existing; August 1, 1997, for new

APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations:

- a. The use of chromium based water treatment chemicals in the cooling towers is prohibited (40 CFR 63 Subpart Q).
- b. Tower #1: Water flow rate to tower shall not exceed 6,000 gallons per minute. Total dissolved solids concentration shall not exceed 1,050 ppm. (Limit on PTE).
- c. Tower #2: Water flow rate to tower shall not exceed 42,000 gallons per minute. Total dissolved solids concentration shall not exceed 1,330 ppm. (Limit on PTE).
- d. Tower #3: Water flow rate to tower shall not exceed 103,156 gallons per minute. Total dissolved solids concentration shall not exceed 1,050 ppm. (Limit on PTE).
- e. The permittee shall perform regular cooling tower maintenance as recommended by the vendor to assure that 0.01% or less drift by weight is maintained at all times.

2. Emission Limitations:

- a. Tower #1: Particulate emission rate shall not exceed 0.3 lb/hr. (BACT).
- b. Tower # 2: Particulate emission rate shall not exceed 2.8 lbs/hr. (BACT).
- c. Tower # 3, Particulate emission rate shall not exceed 5.4 lbs/hr. (BACT).

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

The permittee shall monitor the total dissolved solids concentration or conductivity in the cooling towers' water weekly until the variability is assessed. After the variability is assessed the monitor may be done monthly upon concurrence of the Division.

5. Specific Record Keeping Requirements:

- a. The permittee shall keep records of the cooling towers' TDS or conductivity, and these records shall be made available to Division personnel upon request.
- b. The permittee shall keep records of maintenance, and these records shall be made available to Division personnel upon request.

6. Specific Reporting Requirements:

None.

7. Specific Control Equipment Operating Conditions:

None.

8. Alternative Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(-) RP, (-) TR

Description:

Various paved and unpaved roads within the plant boundaries.

Various paved and unpaved roads within the barge terminal boundaries.

Construction commenced: April, 1993 for plant roads, and July, 1975, for terminal roads.

APPLICABLE REGULATIONS:

- A. 401 KAR 63:010, Fugitive emissions.
- B. 401 KAR 51:017, Prevention of significant deterioration of air quality.

Increases and decreases in emission rates at Gallatin Transit Authority, Incorporated's barge unloading/loading facilities that are not associated with activities at the steel mill shall be reviewed as a separate independent entity. The permittee shall be responsible for demonstrating that an activity is not associated with the steel mill.

1. Operating Limitations:

- a. The permittee may pave any of the existing unpaved roads without permits from this Division. This does not authorize the extension, or construction, of any additional plant roads.
- b. The permittee is authorized to operate 3.63 miles of paved roadways. (Limit on PTE).
- c. The permittee is authorized to operate 1.0 mile of unpaved roadways. (Limit on PTE).
- d. The permittee shall cover the beds of any open-bodied or flat bed trailer trucks when carrying dust covered materials.

2. Emission Limitations:

None

3. Testing Requirements:

None.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

None.

5. Specific Record Keeping Requirements:

The permittee shall keep records of the dates that it swept, and applied water/dust suppressants to roadways, and these records shall be made available to the Division personnel upon request.

6. Specific Reporting Requirements:

None.

7. Specific Control Equipment Operating Conditions:

The permittee shall employ a combination of the following to control fugitive dust emissions (both plant and terminal roads): sweeping for paved roads, watering and the use of dust suppressants, and restricting vehicles' speed on unpaved roads to 5 MPH which shall be enforced by the permittee. (Work Practice BACT).

8. Alternate Operating Scenarios:

None.

9. Compliance Schedule:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(-) BL

Description:

Barge terminal facilities consisting of:

Barge Loading (coal, coke, silicon, gypsum, bark mulch, slag)

Barge Unloading (steel scrap, coke, bark mulch, silicon metal, coal, alloys, scrap substitutes)

Unloading: Conveyor to Stockpiles

Loading: Stockpiles to conveyor

Six Conveyor Transfer Points

Rotary Car Dump (coal)

Two Stockpiles (coal & coke)

Construction commenced: July, 1975, and April, 1986.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive emissions.

401 KAR 51:017, Prevention of significant deterioration of air quality.

Increases and decreases in emission rates at Gallatin Transit Authority, Incorporated's barge unloading/loading facilities that are not associated with activities at the steel mill shall be reviewed as a separate independent entity. The permittee shall be responsible for demonstrating that an activity is not associated with the steel mill.

1. Operating Limitations:

- a. Barge Loading rate shall not exceed 2,000 tons per hour. (Limit on PTE).
- b. Barge Unloading rate shall not exceed 400 tons per hour. (Limit on PTE).
- c. Unloading rate for conveyor to stockpiles shall not exceed 2,000 tons per hour. (Limit on PTE).
- d. Loading rate for stockpiles to conveyor shall not exceed 2,000 tons per hour. (Limit on PTE).
- e. Conveyor shall not transfer more than 2,000 tons per hour. (Limit on PTE).

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Operating Limitations Continued:

- f. For the rotary car dump, maximum coal processing rate shall not exceed 2,000 tons per hour. (Limit on PTE).

2. Emission Limitations :

None.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

The permittee shall perform monthly operational status inspections of the affected facilities and dust suppression equipment. The observations shall include but not be limited to, the physical appearance of all equipment.

5. Specific Record Keeping Requirements:

The permittee shall keep records documenting maintenance that was performed on dust suppression equipment. These maintenance records shall be maintained and made available for inspection by the Division upon request. Records shall be maintained of the monthly operational status inspections.

6. Specific Reporting Requirements:

None.

7. Specific Control Equipment Operating Conditions :

- a. The permittee shall use water and/or surfactants to control fugitive dust. (Work Practice BACT).
- b. The permittee shall operate and maintain dust suppression equipment in accordance with manufacturer's specifications and/or standard operation practices. All deficiencies shall be noted and proper maintenance performed.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Specific Control Equipment Operating Conditions Continued:

- c. The permittee shall comply with the standard operating procedure (SOP) plan that was submitted to the Division.
- d. The permittee shall submit updates of changes in the SOP to the Division in semi-annual reports.

8. Alternative Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(-) P1

Description:

Alloy storage piles

Construction commenced: April, 1993

APPLICABLE REGULATIONS:

- A. 401 KAR 63:010, Fugitive emissions.
- B. 401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations :

All alloy storage piles shall be enclosed on three sides with concrete walls. (Work Practice BACT).

2. Emission Limitations :

None.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

None.

5. Specific Record Keeping Requirements:

None.

6. Specific Reporting Requirements:

None.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

- a. The permittee shall comply with the standard operating procedure (SOP) plan that was submitted to the Division.
- b. The permittee shall submit updates of changes in the SOP to the Division in semi-annual reports.

8. Alternative Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(-) C1

Description:

Conveyor transfer points (existing & new)

Construction commenced: for existing April, 1993, and August 1, 1997, for new.

APPLICABLE REGULATIONS:

- A. 401 KAR 63:010, Fugitive emissions.
- B. 401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations:

All conveyors shall be enclosed to assure that emissions are maintained to a minimum. (Work Practice BACT).

2. Emission Limitations:

Visible emissions shall be zero percent opacity.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

The permittee shall perform monthly operational status inspections of the affected facilities. The observations shall include, but not be limited to, the physical appearance of all equipment.

5. Specific Record keeping Requirements:

None.

6. Specific Reporting Requirements:

None.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

- a. The permittee shall comply with the standard operating procedure (SOP) plan that was submitted to the Division.
- b. The permittee shall submit updates of changes in the SOP to the Division in semi-annual reports.

8. Alternate Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(-) D1

Description:

12 Parts cleaning tanks

Construction commenced: April, 1993

APPLICABLE REGULATIONS:

401 KAR 59:185, New solvent metal cleaning equipment.

1. Operating Limitations :

- a. The use of halogenated solvent is prohibited.
- b. The permittee shall comply with the applicable operating requirements specified by State Regulation 401 KAR 59:185, New solvent metal cleaning equipment.

2. Emission Limitations :

None.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

None.

5. Specific Record Keeping Requirements:

None.

6. Specific Reporting Requirements:

None.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

The permittee shall comply with the applicable control equipment requirements specified by State Regulation 401 KAR 59:185, New solvent metal cleaning equipment.

8. Alternate Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(21) EG

Description:

Tunnel furnace emergency generator (1,500 KW)
Pumphouse emergency generator (1,000 KW)
Construction commenced: April, 1993
Tunnel furnace emergency generator (1500 KW)
Construction commenced: August 1, 1997

APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of significant deterioration of air quality.

1. Operating Limitations :

- a. The permittee shall use low sulfur diesel fuel in the emergency generators. (Limit on PTE).
- b. Each emergency generator shall operate no more than 60 hours in any consecutive 12 month period. (Limit on PTE).

2. Emission Limitations :

None.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

None.

5. Specific Record Keeping Requirements:

The permittee shall keep records of each emergency generator's monthly hours of operation.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

The permittee shall, if requested by the Division, submit a written report within 30 days following the end of each month of the emergency generators' hours of operation.

7. Specific Control Equipment Operating Conditions:

None.

8. Alternate Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(-)S1, (-)B1, (-)S2, (-)B2

Description:

Miscellaneous Dust Emission Units Consisting of:

(-) S1 – Existing: EAF Baghouse Dust Silo, Two Injection Carbon Silos, Granular Lime Silo, Two Slag Conditioner Mixture Silos

(-) B1 – Existing: Lime/Carbon System – Scrap Bucket Additions: Rail & Truck Car Unloading Station, Carbon Silo #1, Lime Silo #2, Lime/Lime Silo #3, Transfer into Buckets 1 &2, Transfer into Bucket 3

(-) S2 – New: EAF Baghouse Dust Silo, Injection Carbon Silo, Two Granular Lime Silos, Two Slag Conditioner Mixture Silos

(-) B2 – New: Lime/Carbon System – Scrap Bucket Additions: Rail & Truck Car Unloading Station, Carbon Silo #1, Lime Silo #2, Lime/Lime Silo #3, Transfer into Buckets 1 &2, Transfer into Bucket 3

Construction commenced: April, 1993, for existing facilities, August 1, 1997, for new facilities.

APPLICABLE REGULATIONS:

- A. 401 KAR 63:010, Fugitive emissions
- B. 401 KAR 51:017, Prevention of significant deterioration of air quality
- C. 401 KAR 59:575, Standards of performance for steel plants: electric arc furnaces and argon-oxygen decarburization vessels constructed after August 17, 1993 (40 CFR Part 60, Subpart AAa)
- D. 401 KAR 59:010, New process operations

1. Operating Limitations:

None.

SECTION B EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

- a. Except for the EAF baghouse dust silos (new and existing), visible emissions from the listed affected facilities shall not equal or exceed 20% opacity. (401 KAR 59:010).
- b. Visible emissions from the EAF baghouse dust silos shall not equal or exceed 10% opacity, on and after the date on which the performance test required to be conducted is completed. (40 CFR 60.272b).

3. Testing Requirements:

- a. With respect to the EAF baghouse dust silos (new and existing), the permittee shall comply with the requirements of 40 CFR 60.275a, test methods and procedures.
- b. The permittee shall determine the opacity, during operation, from each stack or vent by Reference Method 9 on a quarterly basis, or more frequently if requested by the Division. If an exceedance of the opacity limit is determined, the permittee shall conduct Reference Method 9 until five consecutive monitoring days demonstrate compliance with the opacity limit.

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack/vent on a weekly basis. Visual observation shall be made of whether any air emissions (except for water vapor) are visible from the vent/stack and the permittee shall determine whether any visible emissions are normal for the process.
- b. The permittee shall determine the opacity of emissions by Reference Method 9 if visible emissions from any stack/vent is perceived or believed to exceed the applicable standard.
- c. The permittee shall perform an inspection of the control equipment for any necessary repairs if visual emissions from any stack/vent is perceived or believed to be abnormal or exceed the applicable standard.
- d. The permittee shall perform monthly operational status inspections of the affected facilities and dust suppression equipment. The observations shall include but not be limited to, the physical appearance of all equipment.

SECTION B EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

- a. The permittee shall maintain a log of the weekly qualitative visual observations of the opacity of the emissions from each stack/vent. The log shall note: (1) whether any air emissions (except for water vapor) were visible from the vent/stack; (2) all emission points from which visible emissions occurred; and (3) whether the visible emissions were normal for the process.
- b. The permittee shall keep records documenting all deficiencies noted during the monthly operational status inspections and the resulting maintenance that was performed.
- c. Maintenance records relating to opacity of emissions shall be maintained and made available for inspection by the Division upon request.

6. Specific Reporting Requirements:

Any exceedance of the opacity limit shall be reported to the Division within 30 days. Following an exceedance, the company shall submit the daily, Reference Method 9, visible emission readings for this emission point, within 30 days of the end of the calendar month.

7. Specific Control Equipment Operating Conditions (Existing and New):

- a. EAF Baghouse Dust Silos - Install, operate and maintain a baghouse designed to control particulate grain loading to 0.005 grain/dscf and the flow rate to 900 dscf/m. (Work Practice BACT).
- b. Injection Carbon Silos - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 650 dscf/m. (Work Practice BACT).
- c. Granular Lime Silos - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 650 dscf/m. (Work Practice BACT).

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. Slag Conditioner Mixture Silos - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 650 dscf/m. (Work Practice BACT).
- e. Rail & Truck Car Unloading - Install, operate and maintain a baghouse designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 5000 dscf/m.
- f. Carbon Silos #1- Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 900 dscf/m. (Work Practice BACT).
- g. Lime Silos #2 - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 900 dscf/m. (Work Practice BACT).
- h. Lime/Lime Silos #3 - Install, operate and maintain a bin vent filter designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 900 dscf/m. (Work Practice BACT).
- i. Transfers into Buckets 1 &2 - Install, operate and maintain a baghouse designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 5000 dscf/m. (Work Practice BACT).
- j. Transfers into Bucket 3 - Install, operate and maintain a baghouse designed to control particulate grain loading to 0.01 grain/dscf and the flow rate to 5000 dscf/m. (Work Practice BACT).
- k. The permittee shall comply with the standard operating procedure (SOP) plan that was submitted to the Division to ensure that the specified limitations are being met. The SOP plan shall include, but not be limited to, pressure drops, where applicable, normal visual emissions, standard maintenance schedules.
- l. The permittee shall submit updates of changes in the SOP to the Division in semi-annual reports.
- m. The permittee shall operate and maintain baghouses and bin vent filters in accordance with manufacturer's specifications and/or standard operation practices and shall perform proper maintenance of any deficiencies noted during monthly operational status inspections.

SECTION B EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

8. Alternate Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

- a. See Section F.
- b. The permittee shall certify to the Division, annually, that a daily visible emission survey was conducted for any emission point that became subject to a daily visible emission survey under Section 3. The certification shall indicate whether the emission point was in compliance with the applicable opacity requirements.

SECTION B EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1(1-28)

Description:

Refractory brick and post-combustion material recycling of:

Receiving Hopper for Spent Refractory Brick

36' Belt Feeder

3' x 4' Grizzly Screen

Primary Crusher (Portable 4233 Horizontal Shaft Impactor)

30" Crusher Discharge Conveyor with Cross-Belt Magnet

Stockpile (For Ferrous Materials Captured by Cross-Belt Magnet)

Scalping Screen (4' x 8' Single Deck)

24" Returns Conveyor

24" Stacking Conveyor

Crushed Brick Stockpile

Crushed Brick Truck Loadout

Dead Burned Magnesite Stockpile

Magnesite Truck Loadout

Receiving Hopper for Post-Combustion Waste

Scalping Screen for Post-Combustion Waste (5' x 7' Double Deck)

36" Screen Discharge Conveyor

Stockpile (For Screened Post-Combustion Waste)

Loadout by Front-End Loader (For Screened Post-Combustion Waste to Auger Receiving Hopper)

Stockpile (For Oversized Material From Screen)

Receiving Hopper (For Screened Post-Combustion Waste)

Heated Dewatering Auger

24" Screen Feed Conveyor

Scalping Screen (4' x 8' Single Deck)

Stockpile (For Oversized Material From Screen)

Bucket Elevator

110 Storage Silo (For Screened Post-Combustion Material)

110 Storage Silo (For 90/10 Mixture of Coal and Dolomite)

Truck Loadout (For Screened Post-Combustion Material and Coal/Dolomite Mixture)

Construction commenced: September 1, 2001.

APPLICABLE REGULATIONS:

401 KAR 63:010, Fugitive emissions.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

- a. Internal Conveyor (24" Screen Feed Conveyor) (22) loading rate shall not exceed 5 tons per hour and 43,800 tons per year. (Limited by dewatering auger capacity).
- b. Screen (Scalping Screen 4' x 8' Single Deck) rate shall not exceed 5 tons per hour and 43,800 tons per year. (Limited by dewatering auger capacity).
- c. Bucket Elevator (From Screen 21 to Silo 24) rate shall not exceed 5 tons per hour and 43,800 tons per year. (Limited by dewatering auger capacity).
- d. Storage Silo (110 Ton Storage Silo for Screened Post-Combustion Material) rate shall not exceed 5 tons per hour and 43,800 tons per year. (Limited by dewatering auger capacity).

2. Emission Limitations:

None.

3. Testing Requirements:

None.

4. Specific Monitoring Requirements:

The permittee shall perform monthly operational status inspections of the affected facilities and dust suppression equipment. The observations shall include but not be limited to, the physical appearance of all equipment.

5. Specific Record Keeping Requirements:

The permittee shall keep records documenting maintenance that was performed on dust suppression equipment. These maintenance records shall be maintained and made available for inspection by the Division upon request.

SECTION B -- EMISSION POINTS, AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

None.

7. Specific Control Equipment Operating Conditions:

- a. The permittee shall use water and/or surfactants to control fugitive dust. (Work Practice).
- b. The permittee shall operate and maintain dust suppression equipment in accordance with manufacturer's specifications and/or standard operation practices. All deficiencies shall be noted and proper maintenance performed.
- c. The permittee shall comply with the standard operating procedure (SOP) plan that was submitted to the Division.
- d. The permittee shall submit updates of changes in the SOP to the Division in semi-annual reports.

8. Alternative Operating Scenarios:

None.

9. Compliance Schedules:

None.

10. Compliance Certification Requirements:

See Section F.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4).

	Description	Regulation
1.	One HCl Dip Tank (existing)	None
2.	Coil Identification System (existing)	None
3.	Melt Shop Portable Arc Welders	401 KAR 63:010
4.	Melt Shop Cutting Torches	401 KAR 63:010
5.	Melt Shop Portable Plasma Cutter	401 KAR 63:010
6.	Melt Shop Maintenance (Shell/Ladle/Tundish Repair)	401 KAR 63:010
7.	Tundish Spray Station	401 KAR 63:010
8.	Rolling Mill Plasma Cutter at Coiler	401 KAR 63:010
9.	Caster Area Cutting Torch Drops	401 KAR 63:010
10.	Cutting Torch to Ignite Oxygen Lance	401 KAR 63:010
11.	Steel scrapyard torch cutting	401 KAR 63:010
12.	Cutting Torch for Liquid Steel Break Out Cleanup and Cutting of Dummy Bar at Caster	401 KAR 63:010
13.	Caster Area Mold Powder Pouring into Spray Chamber	401 KAR 63:010

SECTION C - INSIGNIFICANT ACTIVITIES CONTINUED

14.	Reheat Furnace Area Maintenance Welding Area	401 KAR 63:010
15.	Reheat Furnace Scale Handling	401 KAR 63:010
16.	6 Stand Rolling Mill	401 KAR 63:010
17.	Rolling Mill Steam Cleaners	401 KAR 63:010
18.	Rolling Mill Cutting Torches	401 KAR 63:010
19.	Rolling Mill Maintenance Welding Areas	401 KAR 63:010
20.	Rolling Mill High Pressure Descale Operation	401 KAR 63:010
21.	Roll Grinding	401 KAR 63:010
22.	Scale Pits	401 KAR 63:010
23.	Rolling Mill Shear Station	401 KAR 63:010
24.	Portable Welders	401 KAR 63:010
25.	Baghouse Portable Cutting Torches	401 KAR 63:010
26.	Pump House Portable Cutting Torches	401 KAR 63:010
27.	Pump House Sludge Filter Press	401 KAR 63:010
28.	Scrap Truck Dump	401 KAR 63:010
29.	Scrap Bucket Charging	401 KAR 63:010
30.	Alloy Handling	401 KAR 63:010
31.	Scrap Storage and Handling	401 KAR 63:010
32.	Outside Maintenance Equipment	401 KAR 63:010

SECTION C - INSIGNIFICANT ACTIVITIES CONTINUED

- | | | |
|-----|---|----------------|
| 33. | Miscellaneous Heaters (Each Natural Gas-fired None And Less Than 1 MM Btu/Hour) | |
| 34. | Various Pieces of Mobile Equipment | 401 KAR 63:010 |
| 35. | Miscellaneous Petroleum and Non-Petroleum Storage Tanks, each with Capacity Less Than 10,567 gallons) | 401 KAR 59:050 |
| 36. | Replacement/Repair of Control Equipment | 401 KAR 63:010 |
| 37. | Parking Lots | 401 KAR 63:010 |
| 38. | Miscellaneous Kerosene Space Heaters (Seasonal Use) | None |
| 39. | Three locomotives (two existing, one new) | None |
| 40. | Emergency electric generators and emergency fire fighting water pump engines (except boilers) rated at 500 hp or less that use only gasoline, natural gas, LP gas, or distillate oils, that are operated less than 500 hours per year (as verified by appropriate records). | None |
| 41. | Wastewater treatment facilities used for domestic sewage only, excluding combustion or incineration equipment. | None |
| 42. | Laboratory fume hoods and vents used exclusively for chemical or physical analysis, or for bench-scale production R&D facilities. | None |

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

- | | | |
|-----|--|---------------------------------------|
| 43. | Indirect heat exchangers or water heaters rated at 1 million BTU per hour or less actual heat input that use #2 fuel oil, wood, natural gas, LP gas, or refinery fuel gas. | None |
| 44. | Use of Rolling Mill Lubricants During Hot Rolling | None |
| 45. | Scrap cutting from slag pot | 401 KAR 63:010 |
| 46. | Cooling Tower
4200 gallons per minute | 401 KAR 59:010
40 CFR 63 Subpart Q |

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. The permittee shall only use natural gas as fuel in combustion emission units, except for the emergency generators which shall use diesel fuel. Each combustion unit shall be equipped with low NO_x burners unless otherwise specified herein.
2. Except as otherwise provided herein, hourly BACT emission limitations shall be averaged over three heats unless a corresponding compliance demonstration requires a longer averaging period.
3. Compliance with Work Practice BACT limitations established herein shall be based upon a one-month average.
4. Compliance with annual limitations established herein shall be based upon total monthly emissions during any consecutive 12-month period.
5. No oils or lubricants shall be applied to slabs or coils, other than those approved by the Division.
6. The permittee shall take reasonable precautions to prevent particulate fugitive dust emissions from becoming airborne. Visible fugitive dust emissions beyond the property line are prohibited. (401 KAR 63:010).
7. If the National Park Service demonstrates that the increases in emissions allowed by this permit adversely impact the air quality-related values of Mammoth Cave, and the Division concurs, this permit shall be re-opened in accordance with Regulation 401 KAR 50:035, Section 18. (40 CFR Part 52 & 402 KAR 51:017).

SECTION E - CONTROL EQUIPMENT CONDITIONS

Pursuant to 401 KAR 50:012, Section 1(1) and 401 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the cabinet which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a) Date, place as defined in this permit, and time of sampling or measurements;
 - b) Analyses performance dates;
 - c) Company or entity that performed analyses;
 - d) Analytical techniques or methods used;
 - e) Analyses results; and
 - f) Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained at the source authorized by this permit for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.
3. The permittee shall allow the Cabinet or authorized representatives to perform the following:
 - a) Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
 - b) Have access to and copy, at reasonable times, any records required by the permit:
 - i) During normal office hours, and
 - ii) During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet.
 - c) Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
 - i) During all hours of operation at the source,

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii) During an emergency; and
- d) Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
 - i) During all hours of operation at the source,
 - ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii) During an emergency.
- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit, other than continuous emission monitors, shall be reported to the Division's Florence Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. The reports are due within 30 days after the end of each six-month reporting period that commences on the initial issuance date of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. Data from the continuous emission monitors shall be reported to the Technical Services Branch in the Division's Frankfort office in accordance with the requirements of Regulation 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.
- 6. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Florence Regional Office concerning startups, shutdowns, or malfunctions as follows:
 - 1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.

2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made within 24 hours by telephone (or other electronic media) and shall cause written notice upon request.
 - b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall promptly report deviations from permit requirements, including those attributed to upset conditions to the Division for Air Quality Florence Regional Office. Prompt reporting shall be defined as quarterly for any deviation related to emission standards (other than emission exceedances covered by General Condition 6(a) above) and semi-annually for all other deviations from the permit requirements if not otherwise specified in the permit.
7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date by completing and returning a Compliance Certification Form (DEP 7007CC) to the addresses in e. below in accordance with the following requirements:
 - a. Identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status regarding each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent; and
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
 - e. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date. Annual compliance certifications should be mailed to the following addresses:

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING
REQUIREMENTS (CONTINUED)**

Division for Air Quality
Florence Regional Office
8020 Ewing Boulevard, Suite 110
Florence, KY 41042

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee
9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d) and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR_50:035, Section 12(2)(c);
 - b) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.;
 - c) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

SECTION G - GENERAL CONDITIONS (CONTINUED)

General Compliance Requirements (Continued)

4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.
5. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit.
6. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance.
7. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
8. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6).
9. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance.
10. This permit shall not convey property rights or exclusive privileges.
11. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
12. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.
14. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(a) General Compliance Requirements (Continued):

15. The applicability of the following regulations has been investigated and found not to apply to the source for the following reasons:

<u>Regulation</u>	<u>Reasoning</u>
1. 401 KAR 63:022	Emissions below significant levels
2. 401 KAR 60:005, Section 3(aa)	Not a coal preparation plant
3. 401 KAR 60:005, Section 3(b)	Not an industrial steam generating unit
4. 401 KAR 60:005, Section 3(c)	Not an industrial steam generating unit.

16. All emission limitations listed in this permit shall apply at all times except during periods of start-up, shutdown, or malfunctions in accordance with State Regulation 401 KAR 50:055, general compliance requirements.

17. All permits previously issued to this source at this location are hereby subsumed into this permit.

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division.

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP

SECTION G - GENERAL CONDITIONS (CONTINUED)

Permit Revisions (continued)

or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority prior to the transfer.
- (d) Construction, Start-Up, and Initial Compliance Certification Requirements
1. The permittee shall install, calibrate, maintain, and operate devices which continuously monitor and record the NO_x and CO concentrations of the gases in the ducts leading to the baghouse, or other approved locations, for 02(E2). The CEMs for NO_x and CO shall be installed and calibrated upon start-up of 02(E2).
 2. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
 3. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Florence Regional Office in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - a) The date when construction commenced.
 - b) The date of start-up of the affected facilities listed in this permit.
 - c) The date when the maximum production rate specified in the permit application was achieved.

SECTION G - GENERAL CONDITIONS (CONTINUED)

Construction, Start-Up, and Initial Compliance Certification Requirements (Continued)

4. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the Division upon a satisfactory request showing that an extension is justified.
5. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in this permit.
6. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after start-up of such facilities, the permittee shall conduct a performance demonstration (test) on the affected facilities in accordance with Regulation 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Conditions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.
7. Pursuant to Section VII 2.2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1.(1), at least one month prior to the date of required performance tests, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

G - GENERAL CONDITIONS (CONTINUED)

(e) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - i) An emergency occurred and the permittee can identify the cause of the emergency;
 - ii) The permitted facility was at the time being properly operated;
 - iii) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - iv) The permittee notified the Division within two working days and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e), and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(g) Risk Management Provisions

The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall:

- a. Submit a Risk Management Plan to U.S. EPA, Region IV with a copy to this Division and comply with the Risk Management Program by June 21, 1999 or a later date specified by the U.S. EPA.
- b. Submit additional relevant information if requested by the Division or the U.S. EPA.

(h) Ozone Depleting Substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the record keeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

SECTION G - GENERAL CONDITIONS (CONTINUED)

Ozone Depleting Substances (Continued)

- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart_B,_Servicing of Motor Vehicle Air Conditioners.

SECTION H – COMPLIANCE SCHEDULE

This section contains compliance schedule requirements as required by 401 KAR 50:035, Permits, Section 7(2)(a). Progress reports on this schedule must be submitted as required by the Consent Decree for Civil Action 99-30. Reports shall include the following items: (a) Dates scheduled for achieving each milestone, and the actual date that compliance is achieved; and (b) An explanation of why dates in the schedule of compliance were not or will not met, and preventive or corrective measures adopted to ensure that compliance with future items will be brought back on schedule.

1. Compliance with the terms and conditions of this Section shall be certified as required by the Consent Decree for Civil Action 99-30 to the Division for Air Quality and the U.S. EPA.
2. This permit shall be re-opened within 30 days of entry of the Consent Decree in Civil Action 99-30 to incorporate and address any applicable requirements under Section VI of the Consent Decree.”